United Engineering Company Shipyard,
Crane
(Structure No. 27)
2900 Main Street
Alameda
Alameda County
California

HAER No. CA-295-P

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PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record
National Park Service
Department of the Interior
San Francisco, California

HAER CAL 1-ALAM, 4P-

HISTORIC AMERICAN ENGINEERING RECORD

UNITED ENGINEERING COMPANY SHIPYARD, CRANE
(Structure No. 27)

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U.S.G.S. 7.5 minute Oakland West, Calif. quadrangle.
Universal Transverse Mercator Coordinates: 10.562480.4181460

Significance:

The crane is a contributing structure in the United Engineering Company Shipyard historic district that has been determined eligible for the National Register of Historic Places. The United Engineering Company Shipyard, established in 1941 to build and repair ships for the U.S. Navy, is the last surviving of several large World War II shipyards in Alameda. United Engineering built 21 tugboats and repaired hundreds of ships during the war. The facility was one of the largest employers in Alameda and played an important economic and social role in the city. The crane represents a major expenditure and an important element in the efficient operation of the shipyard.

Description:

The crane is located on the west end of the concrete wharf (on the south side of the Oakland Inner Harbor) in the Alameda Gateway complex. The crane is a tall revolving structure composed of a base, a car, and a boom. The crane car is approximately 15 feet tall, 40 feet long and 20 feet wide. The car sits on a base that is 60 feet tall. The base is approximately 17 feet wide with a 30-foot wheelbase. A boom extends from the crane car 90 feet. A sign on the base indicates the steel used was from the Illinois Steel Company.

The crane rests on steel rails that run the length of the wharf, past the Alameda Ferry Terminal on the adjacent property to the west. According to the 1942 plans for the crane, the rails are #100 ASCE runway rail.[1] The wheels are steel with steel plate housing. The crane base is a frame made of steel beams. The beams form three vertical bays. The east and west sides of the base have "X" braces in all three bays. The north and south sides have "X" braces in the top two bays: the lowest bay is open. The joints are welded and connections have bolted steel gussets. A metal ladder leads from the ground to the bottom level of the second bay. From there a steep stairway provides access to the car.

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1 Colby Steel & Engineering Co., *General Arrangement and Clearances—Model 200 Crane* (Vancouver, British Columbia, Seattle, Washington, and New York, New York, 10 August 1942).

The crane car sits on top of a very large turntable, which rests on the base. The car is steel with windows on the boom side. On top of the car is a pyramidal steel frame that holds the boom line.

The boom is also made of steel beams with what could be called zigzag bracing. There are two hoists at the end of the boom. The furthest hoist has a single pulley from which hangs a "Whip Hook." A second hoist (closer to the car) has two pulleys with a larger whip hook. A boom line runs from the end of the boom to the pyramid on top of the crane car.

According to the plans, the crane could lift between 18,000 and 90,000-pound loads depending on the angle of the boom (assuming a 44 ton counterweight). A sign painted on the side of the crane reiterates the 90,000 pound maximum capacity; it reads, "MAXCAP 45 tons." The cranes are Model 200 from Colby Steel & Engineering in New York.

The crane is somewhat rusted and is no longer in use, but is little altered.

Historical Context: The extant crane was one of two large gantry cranes erected at the United Engineering yard in the early 1940s during a massive construction campaign. In the 1940s, United Engineering quickly constructed numerous buildings and acquired equipment to accommodate shipbuilding and repair necessitated by U.S. involvement in World War II.

This crane first appeared on a map of the shipyard dated 14 June 1943. It was located on rails that ran the length of Pier No. 4. According to a contract summary dated 1 November 1943, the crane, listed as a Colby crane, cost $58,269.20. Sometime between 1970 and 1984, the crane was moved to Pier No. 5 at the opposite end of the shipyard. The crane is currently not in use.

Sources:

Colby Steel & Engineering Co., *General Arrangement and Clearances—Model 200 Crane.* Vancouver, British Columbia, Seattle, Washington, and New York, New York, 10 August 1942.

United Engineering Company Ltd. *Map of Alameda Shipyard Showing Existing and Proposed Additional Facilities*. Plan no. UEC-A-1-7. 14 June 1943.

United Engineering Company Ltd. "Alameda Shipyard, Contract NObs-76, Shipbuilding and Ship Repair Facilities". 1 November 1943.

United Engineering Company Ltd. *Alameda Shipyard, San Francisco Area*, Sketch No. 48. 10 February 1944.

Kennedy, Clyde C., Engineering Office of. "Area Plan and Interceptor Profile: Improvements to Sewer System for Properties Occupied by Todd Shipyards Corp., Alameda, Calif." Prepared for Matson – United Properties, Inc. 9 August 1951.

Alameda Gateway. *Existing Site Plan*. 30 January 1984.

United States. Army Corps of Engineers – San Francisco District and California. State Historic Preservation Officer. Memorandum of Agreement Regarding the Oakland Harbor Navigation Improvements Project, Alameda County, California. Signed 31 January 2001 and 22 January 2001.

Widell, Cherilyn, State Historic Preservation Officer. Letter to Richard G. Thompson, Lieutenant Colonel, San Francisco District, Corps of Engineers, Regarding Oakland Harbor Ship Channel Deepening and Improvements, Alameda County [Determination of Eligibility Concurrence]. 9 June 1998.

Thompson, Richard G., Lieutenant Colonel, San Francisco District, Corps of Engineers. Letter to Cherilyn Widell, State Historic Preservation Officer, requesting Determination of Eligibility. 30 April 1998.

Project Information: This report was prepared for the U.S. Army Corps of Engineers and the Port of Oakland in accordance with a Memorandum of Agreement (MOA) between the U.S. Army Corps of Engineers, San Francisco District and the California State Historic Preservation Officer concerning the former United Engineering Company shipyard. The Port of Oakland and the City of Alameda were concurring parties to the MOA. The MOA was created because of a proposal by the U.S. Army Corp of Engineers in partnership with the Port of Oakland to sponsor the Oakland Harbor Navigation Improvements Project. This project "would deepen Oakland Harbor channels and berth areas from –42 feet mean lower low water (MLLW) to –50 feet MLLW, with 2 feet overdredge allowance" and widen some portions of the channels. These actions, which would constitute an Undertaking under Section 106, would result in the demolition of several buildings and structures at the former United Engineering Company Shipyard. Because the shipyard had been determined eligible for the National Register of Historic Places, the Undertaking would have an adverse effect on the property. Under the MOA, the following HAER documentation has been prepared: a written historic and descriptive report on the shipyard as a whole, seventeen separate reports on individual buildings

and structures in the shipyard, including this report, and photographic documentation.

This structure will not be demolished by the federal undertaking.

This report was prepared by Jody Stock, architectural designer, and Michael R. Corbett, architectural historian. Corbett was a subcontractor to Basin Research Associates of San Leandro. Basin Research was under contract to g. borchard & associates.